

COMBINED DECLARATION AND POWER OF ATTORNEY

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As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name; and

I verily believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **IMPROVED PROCESS FOR SYNTHESIS OF OLIGONUCLEOTIDES** the specification of which:

(XX) is attached hereto.

(    was filed on \_\_\_\_\_ as Application  
Serial No. \_\_\_\_\_ and was amended on \_\_\_\_\_  
(if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to be material to the patentability of this application in accordance with 37 CFR § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of any application on which priority is claimed:

Country	Number	Date Filed	Priority Claimed
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to be material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Application Serial No.	Filing Date	Status
_____	_____	_____

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: **John W. Caldwell** and **Michael P Straher**, Registration Nos. 28,937 and 38,325 of the firm of **WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS LLP**, One Liberty Place - 46th Floor, Philadelphia, Pennsylvania 19103, and **Herb Boswell**, **Laurel Bernstein** and **Andrew E. Granston**, Registration Nos. 27,311, 37,280 and 38,473, of **ISIS Pharmaceuticals**, 2292 Faraday Avenue, Carlsbad, California 92008.

Address all telephone calls and correspondence to:

**Michael P. Straher, Esq.**  
**WOODCOCK WASHBURN KURTZ MACKIEWICZ & NORRIS LLP**  
 One Liberty Place - 46th Floor  
 Philadelphia, PA 19103  
 Telephone No. 215-568-3100.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the

United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1	Full Name: Achim H. Krotz	Inventor's Signature:	Date:
	Residence: Irvine, California	Citizenship: U.S.	
	Post Office Address: 26 Pergola Irvine, California 92715		
2	Full Name: Vasulinga T. Ravikumar	Inventor's Signature:	Date
	Residence: Carlsbad, California	Citizenship: India	
	Post Office Address: 6606 Vireo Court Carlsbad, California 92009		
3	Full Name:	Inventor's Signature:	Date
	Residence:	Citizenship:	
	Post Office Address:		

Applicant or Patentee: Achim H. Krotz and Vasulinga T. Ravikumar

Serial No.: To Be Assigned

Attorney's Docket No.: ISIS-2710

Date Filed: Herewith

For: IMPROVED PROCESS FOR SYNTHESIS OF OLIGONUCLEOTIDES

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) and 1.27(c) - SMALL BUSINESS CONCERN**

I hereby declare that I am:

- ( ) the owner of the small business concern identified below:
- (X) an official empowered to act on behalf of the concern identified below:

**NAME OF CONCERN:** ISIS Pharmaceuticals, Inc.

**ADDRESS OF CONCERN:** 2292 Faraday Avenue  
Carlsbad, CA 92008

I hereby declare that the above-identified small business concern qualifies as a small business concern as defined in 13 CFR 121.12, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, in that: (1) the number of employees of the concern, including those of its affiliates, does not exceed 500 persons; and (2) the concern has not assigned, granted, conveyed, or licensed, and is under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who could not be classified as an independent inventor if that person had made the invention, or to any concern which would not qualify as a small business concern or a nonprofit organization under this section. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled **IMPROVED PROCESS FOR SYNTHESIS OF OLIGONUCLEOTIDES** by inventor(s) **Achim H. Krotz and Vasulinga T. Ravikumar** described in

- (X) specification filed herewith.

09032972-030299

( ) application serial no. \_\_\_\_\_, filed \_\_\_\_\_

( ) patent no. \_\_\_\_\_, issued \_\_\_\_\_.

If the rights held by the above-identified small business concern are not exclusive, each individual, concern or organization having rights in the invention is listed below\* and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).

**\*NOTE: Separate verified statements are required for each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)**

**FULL NAME:**

**ADDRESS:**

( ) INDIVIDUAL ( ) SMALL BUSINESS CONCERN ( ) NONPROFIT ORGANIZATION

**FULL NAME:**

**ADDRESS:**

( ) INDIVIDUAL ( ) SMALL BUSINESS CONCERN ( ) NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

**NAME OF PERSON SIGNING**  
**TITLE OF PERSON SIGNING**  
**ADDRESS OF PERSON SIGNING**

Daniel L. Kisner  
President & Chief Operating Officer  
2292 Faraday Avenue  
Carlsbad, CA 92008

D. Kisner  
SIGNATURE

2/25/98  
DATE